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REPORT

ON

A DEPARTMENT OF HYGIENE

AND

PHYSICAL CULTURE

IN

THE UNIVERSITY OF MICHIGAN,

BY A COMMITTEE OF THE UNIVERSITY SENATE.

ANN ARBOR:

PUBLISHED BY THE UNIVERSITY.

1870.

NOTE.

At the meeting of the Board of Regents of the University of Michigan, September 22d, 1869, the following resolution was adopted:

Resolved, That the University Senate be requested to examine and report to the Board in regard to the propriety of establishing a Gymnasium in connection with the University, as also in regard to the relation which it shall hold to the University Course, if so established; and to collect information and present their views respecting the entire subject of introducing Gymnastic Exercises as a part of a course of Education.

The following report, prepared by a committee of the University Senate, in response to this request, is published by authority of the Board of Regents.

REPORT.

A vast expansion of the scope of our American college-system is the characteristic educational fact of the last fifteen years. One very important direction in which this recent enlargement has shown itself, is towards systematic physical culture, as a regular part of the work of a college course. This latter movement was, indeed, to have been expected. It would have been more than strange, if, while our colleges were providing greater facilities for the study of the sciences, of modern languages and literatures, of history, of the fine arts, they had done nothing for the instruction of students in hygiene and gymnastics. For it is impossible to advance very far in the construction of a scheme of education without confronting the fair claim of the body for orderly scientific culture along with the culture of the mind. The mere statement of the great object of education as being the systematic development of manhood and womanhood, really settles the question; for there is no other spectacle of a want of symmetry in the development of a human being so glaring and so painful as that of a cultivated mind inhabiting a neglected, feeble and incompetent body. And the declaration just made is confirmed by the fact that the principal modern writers on education—Roger Ascham, Bacon, Cowley, Milton, Locke, Rousseau, Dr. Arnold, Horace Mann, and Herbert Spencer—have insisted upon the equal rights and the equal needs of the body and the mind, with reference to systematic training. Yet, in America fifteen years ago, no contrast could have been greater than that which was presented between theory and practice upon the subject. All our educational authorities sanctioned physical culture; and all our educational institutions neglected it.

Within the brief period which has been mentioned, however, in consequence of a general awakening of American colleges to a new and larger life, and especially in consequence of a ripening of public opinion upon the necessity of attending to

the education of the body, in several of the leading colleges a department of physical culture has been established. Already gymnasiums have been erected at the following colleges: Bowdoin, Dartmouth, Harvard, Amherst, Williams, Yale and Princeton. Some of these gymnasiums, particularly those at Dartmouth, Williams and Princeton, are large, imposing and costly edifices. At all these colleges, with the exception of Princeton, the experiment of physical culture has been tried for a number of years. Ample time has elapsed for the results of this experiment to appear. What these results are your committee have sought to ascertain by corresponding with the proper persons.

At four of the colleges just named, the experiment seems to have been made with peculiar thoroughness; and for the sake of simplifying the present report, the results obtained at these four colleges will be particularly referred to. These colleges are Yale, Dartmouth, Williams and Amherst.

It appeared to your committee that the experience of these colleges was to be sought as to the effects of a Department of Physical Culture in three particulars:

1. Upon the physical condition of the students.
2. Upon the scholarship of the students.
3. Upon the morals and general behavior of the students.

Our informants are Mr. F. G. Welch, Instructor in Gymnastics at Yale, whom we have consulted chiefly as to methods rather than results, Professor A. M. Wheeler of Yale, President Smith of Dartmouth, President Hopkins of Williams, and Professor Edward Hitchcock of Amherst. Professor Hitchcock, also, very kindly sent to us a pamphlet entitled "Physical Culture in Amherst College, by Nathan Allen, M. D.," one of the Trustees of the college. From this pamphlet we have obtained most valuable information, a part of which will be given in this report. Before proceeding to quote the testimony which we have received from these gentlemen it may be well to say that the Yale and Amherst gymnasiums have been in use eight years, and those of Williams and Dartmouth about half that time; that at Williams and Yale the attendance at the gymnasium has been voluntary, and consequently has been but partial; while at Dartmouth and Amherst, physical education has been recognized as of equal importance with intellectual education, and has been put upon the same basis with it; and that, consequently, at these two colleges the influence of the gymnastic department being felt by all the students, has been more fruitful of results.

1. Effects of the Department of Physical Culture upon the bodily condition of the students.

Under this head the committee made three inquiries; first whether any serious accidents had occurred in the gymnasium; second, whether there had been any cases of injury from over-

practice; third, whether any improvement had taken place in the physical development and in the general health of the students.

To these inquiries we have received the following replies:

YALE. Mr Welch says: "No serious accidents have ever happened here. In all my experience I have not known a dozen falls that amounted to anything. Undoubtedly there are some who are injured more or less permanently by over-practice. Sometimes the results are manifest during the time of practice; at others later in life. In my experience I have known of but two instances. One, a delicate young man, who seldom frequented the gymnasium, came in one day and attempted a most difficult feat, rupturing a blood-vessel. His accident was not of a serious nature. The other was myself, at a time when I taught and studied too much."

DARTMOUTH. President Smith says: "Very few serious accidents and none fatal. Fewer, I think, than in many of the out-door sports. But few cases of injury from over-practice. When classes enter they sometimes spend too much time in the Gymnasium, particularly at the bowling alleys. But the matter soon regulates itself. As to the effects of gymnastic practice on the physical development and health of the students, I give below the testimony of Prof. A. B. Crosby, now lecturing at Ann Arbor, as published in our Catalogues. 'Since the opening of the Gymnasium, I have taken occasion to witness frequently the exercises, and the results have more than equalled my expectations. There has been no case of severe illness in the College during that time, and there have been fewer instances of slight indisposition than I have ever known in the same length of time before. Dyspepsia, debility, and similar affections incident to a sedentary life, and which have hitherto been frequent in the change of seasons from winter to spring, have, during the present season, been unknown. There has been a manifest improvement in the general physical tone of the College, and the increased muscular power and agility of the young men have forced themselves on the attention even of unpracticed eyes. I am fully satisfied, that these exercises have greatly subverted the general health of the students.'"

WILLIAMS. Pres. Mark Hopkins says: "We have had no serious accidents. I am aware of no serious injury from over-exertion. I have no statistics, and can only say that I think well of the department of physical training, if the right man can be in charge of it."

AMHERST. The testimony from Amherst College, both on this point and on every other connected with the practice of physical culture, is very full. Prof. Hitchcock says: "We have had but two serious accidents: one, that kept a student from study three months, and one that compelled a young man

to drop behind one year. No cases of injury from over-practice. As to the effects of gymnastics on the physical development and health of the students, see Dr. Allen's pamphlet." Accordingly we turn to the pamphlet alluded to, and we find a careful and deeply interesting sketch by a physician of the history of the department of physical culture in the College. Upon the points now under consideration Dr. Allen, p. 18-19 says:

"When the subject was first agitated in respect to introducing into college gymnastic exercises, there were various prejudices and objections to such a course. One of the original objections to the establishment of a gymnasium—and it still exists to some extent—is the danger of some serious harm or injury befalling those engaged in such exercises. But such accidents very seldom occur in the regular practice of gymnastics. It should be remembered, that the more one exercises in this way the better command of his limbs and body he obtains, and therefore is less likely to meet with injuries. During the eight years since the establishment of this department there have been quite a number of bruises and sprains, one broken limb and one dislocated joint, but no really serious or permanent injury. Considering the great number and variety of exercises and the extraordinary exposures in the performance of daring feats,—that over six hundred students have taken a part in these exercises, and most of them, for a time, entirely inexperienced, the accidents have certainly been very few in number and slight in character. And those that have taken place occurred generally out of the regular exercises, for the want of care, or on account of some physical weakness of the individual injured. It is stated on good authority, that the accidents arising in ball-playing,—practiced only a few weeks each year,—are four times larger than those from gymnastics."

With regard to the effects of gymnastics upon the physical development and health of the students, Dr. Allen, pp. 22—26, says:

"When the erection of a gymnasium was first agitated, and even for some time after gymnastics were introduced, it was said by some persons that the whole thing was an experiment; that after the novelty was over the interest would soon subside, and the enterprise would prove a failure. It is now eight years since this department was established,—eight different classes, numbering in all over six hundred students, have taken part in its exercises, and four classes have enjoyed its benefits throughout their whole collegiate course. What then has been the effect of these upon the health of the students, as well as upon the sanitary condition of the Institution? This may be exhibited in a variety of ways.

1st. There has been a decided improvement in the very

countenances and general physique of students. Instead of the pale, sickly and sallow complexion once very commonly seen, with an occasional lean, care-worn and haggard look, we now witness very generally, fresh, ruddy and healthy countenances, indicative of a higher degree of vitality, and that the vital currents, enriched by nutrition and oxygen, have a free and equal circulation throughout the whole system. This change is so marked as to attract the attention of the casual observer, and has been commented upon by those formerly attending Commencements or other public occasions here, as exhibiting a striking difference between the personal appearance of students at those times, and, that at the present day.

2d. In the use of the limbs and the body,—in the physical movements and conduct of students generally, there has been, we think, decided improvement. Once the awkwardness of manner and the ungraceful bearing of scholars were matters of common remark, and such characteristics not unfrequently followed them through life. This resulted not so much from the want of early training and instruction on this subject, as from the formation of bad habits in study, and the long continued neglect of proper exercise. It was frequently exhibited in stiffness of the joints, a clumsy use of the limbs, in round shoulders and a stooping posture, and sometimes by a countenance set, stern and almost devoid of expression. Now gymnastics, when properly practiced, are calculated to produce in this respect, a surprising effect upon the use of all parts of the body, as well as upon its development. They give not only agility and strength to all the muscles, but a quick and ready control of them, thereby begetting an easy and graceful carriage of the person. * * * *

4th. We come now to consider what has been the effect more directly upon the health of the students, and the sanitary condition of the Institution. It is needless to state how many students formerly impaired or broke down their constitutions for want of sufficient exercise, or from irregular or excessive hours of study, or from some improper habits, or for want of suitable attention to diet, sleep or some other physical law. Perhaps the effects of violated law were not always visible at the time, and did not apparently impede the college course, but the seeds *were here sown* which afterwards brought on disease and premature death, or crippled the energies and limited the usefulness through after life. This may still happen: but with such exercise and instruction as can now be obtained it is not near so likely to occur. Besides, where the vitality of the system is kept up by regular muscular exercise, to an even healthy state, it is one of the strongest safeguards against disease; and then when any organ or portion of the body is affected, nature is more powerful to throw off the

attack. In a community thus trained and instructed the more common complaints, such as colds, headaches, sore throats, feverish attacks, will seldom occur, and the diseases to which scholars are peculiarly liable, such as dyspepsia, neuralgia and consumption stands a far less chance of finding victims. Any skillful and experienced physician will testify at once, that such a community is possessed of a wonderful power to prevent as well as throw off disease. The common proverbs, '*a stitch in time saves nine,*' and '*an ounce of prevention is worth a pound of cure,*' are not more truthful than the statement here made of the remarkable exemption from disease of a community trained and educated as above described.

5th. A comparison of the present health of students with what it was ten or fifteen years ago, shows a surprising improvement. It is rare now for any student to break down suddenly in his health, or to be compelled to leave college on this account. In 1855-6-7 and 8 such cases were common, as may be seen by referring to the statements of President Stearns; and the truth of the statements is moreover confirmed by others personally conversant here for twenty or thirty years. As no record was formerly kept of the amount of sickness from year to year, or of the number of students leaving college on account of illness, no exact comparison on these points in figures can be instituted. But the experience and observation of those who have been on the ground a long time must bear decided testimony to a greatly improved state of health among the students over that of former times; and as for those who once were members of the Institution, and return here on public occasions, they cannot fail to see a great improvement in this respect.

6th. But the evidence of improved health does not rest wholly upon individual opinions or upon loose comparisons. Since 1861, a register has been carefully kept of the kind and amount of sickness in college, an analysis of which presents some striking facts. No student is placed upon the sick list, unless he is detained two consecutive days from the usual exercises of the Institution. The number of students reported sick ranges in the course of the year from twenty-five to sixty, showing a far greater amount of sickness in some years than others, which depends very much on the fact, whether some epidemic prevailed, or whether the year as a whole, either on account of the weather or from some other cause, was not generally unhealthy. If allowance is made for this extra sickness in two of the years out of the eight, the register shows that the actual amount of sickness in college has diminished in these eight years more than *one-third*. That is, in the year just closed, there were only *two-thirds* as much sickness as in 1861, the year when gymnastics were introduced.

Again, the average number of students sick each year of these eight was thirty-eight, and the average number present in college was two hundred and twenty-four, showing that there were one hundred and eighty-six students on an average each year who did not experience two days' sickness at any one time. The register reports forty-one different diseases or complaints to account for this sickness, and a careful inspection of the list shows a remarkable exemption from what are considered generally the more violent and dangerous diseases."

2. After seeking information as to the effects of gymnastics upon the physical condition of the students, your committee enquired concerning the effects of gymnastics upon scholarship. The question had been raised among ourselves whether the gymnasium might not prove a distraction from study, and especially whether some young men might not become so proud of their success as athletes as to disregard the pursuits of the mind. Accordingly into the list of questions sent to the different colleges, your committee introduced this: "Are the great gymnasts apt to be satisfied with that eminence, to the neglect of study?" The following replies have been received:

YALE. Professor Arthur M. Wheeler, of the chair of History, in a letter dated Dec. 20, 1869, says: "Our gymnasium is much frequented by the students; and the general opinion here is—shared alike by the older and younger officers—that the students are more vigorous and healthy in consequence of it, and that in this way it contributes toward higher scholarship. Of course it would be difficult to say to what extent it does this; but we all feel sure that we are much better off for it, physically, mentally and morally.

There is no *tendency* among us to cultivate muscle at the expense of brains, yet now and then a case of that kind occurs. Nearly all the men who do this, however, are boating men; and the evil, so far as it exists, is to be attributed to the boating fever; and boating, as you know, is not an outgrowth of the gymnasium; for it existed before we had a gymnasium."

DARTMOUTH. Pres. Smith says: "The effect on scholarship has been good, in that health and physical vigor have been promoted. We have had no trouble of the kind you speak of to any extent worth mentioning."

WILLIAMS. President Hopkins includes his answer to this question in the general answer given to the preceding one; which answer is favorable.

AMHERST. Professor Hitchcock says: "Effects on scholarship, good generally. Since the first two years, have known of no neglect to study by any student or set of students." Upon the same subject Dr. Allen [p. 29,] says:

"There is still another very important consideration, viz: has the standard of scholarship in college been raised by means of gymnastics? As the system of marking or mode of exhibiting this standard was changed a few years since, an exact comparison in figures cannot here be instituted; but it is the decided opinion of the Registrar, (the College Officer who has charge of these statistics,) that there 'has been an elevation of rank within the past few years.' It may be that some individuals in a class formerly reached as high scholarship as any now do; but the *aggregate* scholarship of a whole class, we are confident, is higher now than it once was, and, to say the least, is much easier obtained, with fewer hours of study, and less loss of health and life."

3. The third general question proposed by your committee had reference to the effects of gymnastic training upon the morals and manners of the students. To this question the replies from Yale and Williams are in general terms that the effects are good.

DARTMOUTH. Pres. Smith says: "The effects on morals are good, in that the *sane body* is conducive to entire *sanity of soul*. A vent is opened also, for superfluous animal spirits, which sometimes pass with young men into a 'superfluity of naughtiness.'"

AMHERST. Prof. Hitchcock says: "Less rough and rowdy students. Do not make so much noise on the street or by night; as I encourage noise and considerable rough play during the regular exercises."

In 1862, Professor Hitchcock, in his first report to the trustees, made this remark; "During a portion of the exercises, I urge upon the captains the necessity of introducing playful exercises, such as running in grotesque attitudes, singing college songs, &c. Sometimes this may seem boisterous and undignified, but it seems desirable to me that a portion of the animal spirits should be worked off inside the stone walls of the gymnasium, under the eye of a college officer, rather than out of doors, rendering night hideous; and in no instance has the captain found the slightest difficulty in bringing his men into line at the word of command."

Dr. Allen [pp. 17-18] quotes upon this subject the testimony of the "Congregational Journal," of Concord, N. H., for Oct. 23, 1862, a correspondent of which paper writes from Amherst College as follows:

"The gymnastic exercises greatly promote the good order and morals of the students. Their animal spirits work off by the correct movements of the gymnasium. They are indisposed to the unmanly and often mischievous doings of students too frequent in our colleges. A citizen of the town assures me, that the amount of injury done to the college and other buildings in the village is almost nothing since the open-

ing of the gymnasium, compared with what it was before. No less advantageous, probably, is the gymnasium to the *mental* progress of the students. They come from the gymnastic exercises to their studies with healthful bodies, clear minds and cheerful spirits. The 'blues,' those most formidable enemies of successful study, assail them not. All is bright and promising, all hopeful. Time will undoubtedly show that no one adjunct, no one department of college, will conduce more to the noble object for which the Institution was founded, than the Gymnasium."

Later in his pamphlet [pp. 31-33] Dr. Allen, refers again to this subject as follows:

"There is another advantage from these exercises worthy of notice, that is in preventing vicious and irregular habits. While no system of gymnastics alone can be expected to break up settled habits of dissipation, such as intemperance, licentiousness, and the excessive use of tobacco or any other stimulant, still, combined with other good influences, they have a direct tendency to forestall or arrest such practices by giving a safe vent to the animal spirits, by regularity of physical exercise, by improving the general health, and producing a more normal condition of the brain. But there is a vice, (nameless here,) more terrible in its effects, both physical and mental, upon the student, than either of the above, and over which gymnastic exercises have great influence. In fact, it is the testimony of the highest medical authorities, that regular and tolerably severe gymnastic exercise is not only the most effective means of preventing or checking this vice, but is really the best curative agent. And it is a gratifying fact that we can add the testimony of the Professor of this department, that gymnastics have been working to a like result in this institution.

"It is found that a *regular system of gymnastics* operates in a variety of ways as a powerful auxiliary of discipline; that it answers as a kind of safety-valve to let off in an indirect way that excess of animal spirits which is characteristic of some young men, and which not unfrequently leads them into trouble or conflict with authority. Again it serves with others as a kind of regulator to the system, exercising certain parts of it to such an extent as to produce weariness and fatigue, so that the individual seeks repose; and with another class it tends to remove any unnatural or innate weakness of the frame, and by such improvements serves to equalize and regulate all the forces of nature. Thus such a system of gymnastics sets up a *standard of law for self-government*; for it is based upon those great laws of *life and health* which are a part of the will and government of God in this world, as much as the ten commandments. No by-laws or code of ethics established by any human teacher or institution can compare

in authority or final appeal to those *great natural, primeval laws* engraved upon our constitutions by the Creator. It will be seen at once *what a power* the instructor has over the conscience and reason of a student thus trained. Said President Felton to the writer, shortly before his decease, referring to the gymnastics at Amherst which he had just witnessed: 'Such a system of physical exercises thoroughly understood and applied by the members of Harvard University, would aid me in the matter of discipline in the Institution more than anything else.' We are here authorized to state, that the Faculty of Amherst College have found great assistance in government from this source ;—that since the introduction of this department, the cases requiring discipline have been far less numerous, and more easily managed, than formerly."

Thus upon the three great questions which can be raised respecting a department of Physical Culture in the University, namely, as to the effects of such a department upon the bodily condition, upon the scholarship, and upon the manners and morals of the students, your committee have submitted—not abstract theories of their own, but the authentic *results of actual experience*, obtained in the four celebrated American colleges which have tried the experiment of physical culture the longest and most thoroughly. These results are communicated to us in the form of testimony from two college Presidents, from two college Professors, from one college Trustee who is also a physician, and from one practical instructor in gymnastics, who is very noted in his calling and of whom President Smith has written to us in the highest praise.

This testimony can not fail to be regarded as decisive.

Your Committee are of the opinion that in the light of such testimony, this University may proceed to the establishment of a department of Physical Culture, not as if it were venturing upon an untried and a dubious experiment, but unhesitatingly, boldly, with entire confidence in the complete success of the measure, if it be but carried out with reasonable care in its details. Moreover your Committee are of opinion that in view of the great benefits which other colleges have actually found to proceed from such a department, and in view of the great needs of our own students with respect to physical culture and healthful regulated exercise, when the funds of the University shall permit, vigorous action should be taken upon this subject—providing for the students a department of Physical Culture with a building, with an instructor, and with all the necessary appliances, commensurate with the greatness of the institution, with the wants of the students, and with the demands of enlightened public opinion. It has not been usual for the University of Michigan to be either timid or laggard in moving towards improved and generous educational methods. Its true place is in the van of the great

army of educators. At last, however, there is great danger of its violating its own instincts and traditions. On this immense anxious and most urgent business of providing, in a scientific and efficient manner, for the physical education of its students, and through that for their highest intellectual and moral development, the University has dropped from its honored place in the front; unless speedy action be taken, it will lose even a middle position; it will drag hopelessly and unworthily in the rear.

Should it be decided, then, to establish a department of Physical Culture in the University, a number of very important questions at once arise for determination, with reference—

1. To a Gymnastic Building;
2. To the qualifications and duties of the Professor at the head of the new department;
3. To the relation which the department shall hold to the various University courses already established, both professional and collegiate.

Your committee are very clearly of opinion that with reference to each of these questions mistakes are not only possible, but are extremely liable to be made—mistakes, too, which would be absolutely fatal to the utility and success of the department.

Some of the colleges which have established gymnasiums have made such mistakes upon these points as have rendered their gymnasiums nearly useless, thus bringing distrust and reproach upon the whole cause. These mistakes can be avoided by us—by our being on our guard against them, by our remembering that the opinions of experts alone are of much worth upon this subject in matters of detail, and by studying still more minutely the methods pursued in the colleges which have made this department a success.

We would particularly recommend further study of this department in Amherst College. That noble institution undoubtedly leads not only America, but the world, in the successful solution of the problem of uniting physical and mental culture. We may safely take it as almost a perfect model in the arrangement of a department of physical culture. Should the Regents find themselves enabled to establish such a department here, we would suggest to them, that before finally deciding as to the dimensions and the interior arrangements of the gymnasium, upon the choice of an instructor, and upon the relations of gymnastic instruction to the other courses, it would be prudent to send a suitable person to at least six of the colleges which have been named—Princeton, Williams, Yale, Amherst, Harvard and Dartmouth—authorized to find out upon the spot, by actual observation, and by conversation with officials of experience there, all that can be ascertained

with reference to the mistakes to be avoided, and the right conclusions to be reached.

Your committee have already obtained nearly all the information that could be got by correspondence, and they are able to submit, if it were desirable, a great many facts and opinions upon the several particulars now referred to. As to some of these particulars, however, they feel the need of more information than they have been able to obtain by letters, before coming to an absolute conclusion.

For example, if it be decided to have a gymnasium, the very first question which arises is as to its dimensions. Here, at the outset is a serious danger. At some of the colleges it is found that the gymnasiums are too small, or that they are unfortunately proportioned. One great practical authority says that whatever may be the length of the building, it must by all means be as broad as it is long. Yet at Yale the gymnasium is 120 x 50; at Amherst 70 x 40; at Dartmouth 90 x 45; at Princeton 81 x 55; at Bowdoin 75 x 30. Now, we need upon this single point alone, to have some one enquire upon the spot the results of experience as to these dimensions. None of these buildings are square. Is this fact found to be an inconvenience? It would be a pity to ascertain, after our building was up, that its utility to us would be impaired by a mistake that might have been so easily avoided, as to its size and proportions. Professor Hitchcock writes to us that he cannot introduce a very important and attractive method of exercise, *for want of room*. How unfortunate that that want was not foreseen. Dr. Peabody of Harvard writes to us: "If we were to build anew we should make the gymnasium at least 25 per cent larger, and of two stories," instead of one. When *we* build, we want to build it as it should be the first time, without having to tear down and build anew. Too often gymnasiums are built without consulting gymnasts; they are built apparently on *a priori* principles. Such a course is as foolish as it would be to build a chemical laboratory without consulting a chemist, or an astronomical observatory without getting any advice from an astronomer. This, then, is but a specimen of the practical questions which present themselves the moment we set about carrying into effect the resolution to establish a Department of Physical Culture; and your committee would repeat their statement that in order to settle these questions wisely more information must be obtained than can be procured through the channel of letters. Yet as the Regents have expressed a wish for such recommendations as we could make upon these questions we will give concisely the conclusions which we have drawn from our present knowledge upon the whole subject, conscious that these conclusions may require some modification under the pressure of further knowledge that may yet be obtained.

1. We recommend the establishment in this University at such time as circumstances may permit, a Department of Hygiene and Physical Culture, believing, as we do upon ample evidence, that the establishment of such a department would be attended with no such difficulties, or risks as may not be overcome by cautious and intelligent foresight, and that if successful it would result in incalculable good to all our students, and to an increase of the good reputation of the University.

2. In dealing with the next topic, that of the gymnasium building, the committee have had peculiar difficulty. The discrepancy between the sort of building we ought to have, and the sort of building we may be able to have, is so wide as to make it nearly impossible to determine what to recommend. Formerly it was thought that any room, however cheap, dark, cheerless, and inconvenient, if only large enough to admit a few ropes and pulleys and bits of timber, was suitable for a gymnasium. But the opinions of enlightened educators upon this subject are now changed. At the principal colleges the gymnasiums are made as spacious, attractive and convenient as possible.

The following description of the new gymnasium at Princeton, written by Professor Schank, and politely communicated to us by President McCosh, may give some idea of the sort of building which liberal men have provided at that ancient seat of learning: "It is a two story stone building, the main body of which is 81 x 55 feet, flanked by two octagonal towers, each about twenty feet in diameter, the entire measure, including these, being 92 x 60 feet. On the first floor, besides both rooms, &c., there are bowling alleys. The second story, which is open to the roof and high, accommodates the ordinary gymnastic fixtures, with a gallery for spectators over the ball rooms. The towers are pointed spires above the roof and terminate on rods with balls and vanes. The cost when completed and equipped will be about \$35,000."

The gymnasium at Yale cost \$14,000 before the war, exclusive of the apparatus; and at present prices Mr. Welch thinks it would cost \$30,000.

President Smith informs us that the Dartmouth gymnasium cost \$22,800, with about \$1,500 for apparatus—total cost \$24,300.

We did not learn the cost of the Williams gymnasium, but it could not have been less than \$30,000. It is the most beautiful building in Williamstown.

The gymnasium at Amherst cost \$8,000 in 1859, with an additional cost of \$2,000 for apparatus.

The committee began with the attempt to ascertain what could be done for \$5,000, the sum named in the resolution of the Regents in March 1869; but we soon found that

no building of the size required could be put up for any such amount, unless it should be one that would be an eye-sore and an offense to all beholders. A great ungainly shed would not answer the purposes of the Department of Physical Culture; and even if it would, the committee would hesitate long before taking the responsibility of recommending any further desecration of our noble University grounds by architectural monstrosities.

What is really needed by the University to meet the present demands of scientific physical culture is a building either of brick or of stone (the latter being preferable) of dimensions hereafter to be determined, to consist of two stories and a large well lighted cellar; the cellar serving as a store room, as a place for heating apparatus, and ultimately, when means should permit, for ample bath rooms; the first story to be used for bowling alleys, superintendent's and janitor's rooms, dressing rooms and offices; while the second story would contain a large hall of exercise in both heavy and light gymnastics, as well as smaller rooms for sparring, fencing, etc., a room for simple refreshments, like tea and coffee, and a suite of rooms supplied with a piano, and with newspapers, to be used by all the students as the University parlors and reading-rooms, and to be kept open every day in the year, from sunrise until ten o'clock at night. Such an edifice, especially in the absence of the dormitory system, would be a most beneficent one to all our students. It would be the University home. Besides furnishing the students with a means of bodily health and development, it would be a boon to them socially; and by its joyous and hospitable privileges open to them, even when all the other University buildings are closed, it would both afford an unspeakable enjoyment to hundreds of young men, and would save many from temptations now fatal both to health and character. Such a building, properly furnished, at the present rate of materials would require not less than \$25,000.

3. We recommend the appointment of a Professor of Hygiene and Physical Culture, to have the full salary of a Professor in the collegiate department; and as to his qualifications and duties we would adopt the admirable description given by President Stearns in his Annual Report to the Trustees of Amherst College for the year 1860:

"What we need is a professorship extending over the entire department of physical education. 1st—The officer should be a skillful gymnast, capable of conducting his classes, by example as well as precept, through all the exercises which the best training would require them to perform. 2d—He should have a good medical education, with sufficient knowledge of disease, if not to manage severe cases, yet to know whether a student is sick or well, obeying the laws of health or breaking them, and, as a wise friend, to caution him, ad-

vise him and put him on the track towards physical vigor. 3d—That he should have such knowledge of elocution as would enable him to teach those movements of the body, lungs and vocal organs which are essential to graceful and effective oratory. Elocution is properly a branch of gymnastics, and the highest degree of health, to say nothing of good manners and good speaking, can hardly be secured without it or a substitute for it. This officer, while having charge of gymnastics, would naturally teach the laws of health and the physical part of oratory; and as he would be much with the students, and would be likely to have great influence over them, he ought to be a man of cultivated tastes and manners—a man of honorable sentiments and correct principles, having high aims and a Christian spirit. Such a man, with such a work as I have now marked out successfully pursued, would be an incalculable advantage to the college and to mankind.”

4. In order to avoid over-crowding of the building, and inconvenience to the students, we recommend that during the Law and Medical terms, the several parts of the day and evening, to be hereafter determined, be divided among the students of the three departments, and that for at least one hour each day the building be also appropriated to the use of the University Faculties; that attendance at the gymnasium be entirely optional with all the students; only that the students in the collegiate department be called upon, at the beginning of each year, to determine whether they will attend the gymnasium, and that those who decide to do so shall be required to exercise in light gymnastics with their respective classes for at least one-half hour each day, for four days in the week; all work in heavy gymnastics and in the bowling alleys to be taken by them according to regulations hereafter to be determined.

5. We recommend that in order to meet the current expenses of the Department of Physical Culture, a small fee, (say \$2 per semester, and \$3 per professional term) be charged to each student who avails himself of the privileges of the department; it being understood that so soon as, either by private munificence or by State endowment, the expenses of the department shall be otherwise provided for, its privileges shall be extended to all without any charge whatever.

In conclusion, the Committee would remark that the foregoing plan for a Department of Physical Culture involves an expenditure which is probably quite beyond the present resources of the University; and that without some special gift of money for the purpose, either by the legislature or by private individuals, the University will be unable to confer upon its students certain very important advantages in the process of a complete education. We would call particular

attention to the fact that the beautiful and spacious gymnasiums at Princeton, Williams and Dartmouth were built by private generosity. Is there no rich man in Michigan, or even in the United States, (for our students represent all the States) who would be willing, by a timely benefaction, to connect his name forever with the destinies of this great University, and to bestow an incalculable boon upon all the multitudes of students who are to resort here for the pursuit of knowledge?

MOSES COIT TYLER,

Chairman.

EDWARD OLNEY,

C. L. FORD, M. D.

THOMAS M. COOLEY.